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Charles W. Grim, DDS, MHSA

Director, IHS

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Kenneth R Russell, Acting CTO

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Information Technology I e W S

DIR/Information Technology Support Center

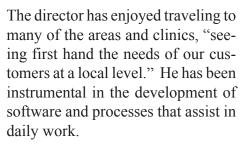
Rus Has Left The Building

As most of you already know, Russell "Rus" Pittman has left the IHS to take the position of Deputy Director of Information Resource Management (IRM) with the FDIC. Rus has been the Director of the ITSC since June 1999, but has been with the IHS since

1996. Before joining the ITSC, he was the CIO at the Alaska Native Medical Center in Anchorage, Alaska and prior to that he was Chief, Information Technology Service at the VA Medical Center in Anchorage. He has also worked at the VA Medical Center



Before he left, I had an opportunity to sit down with the director and talk about his time here at IHS. Speaking with Rus, it is immediately apparent that he has a real passion for his work and is extremely proud of how far the ITSC has advanced. "The ITSC has gone from outdated systems to a much more sophisticated enterprise operation with the tools and resources needed to empower skilled people to better manage operations and produce superior results."



When asked what accomplishments he is most proud of during his tenure as director, Rus was exceedingly quick to point out that he didn't "do" any of these things himself, but "simply facilitated and directed the resources necessary to achieve the goals that needed to be com-

pleted." He mentioned just a few things of which he is most proud.

- NPIRS is now producing current workload and population reports and is moving toward becoming a true data warehouse, and through improvements, Area Statistical Officers and Epidemiologists can now directly access data themselves.
- The ITSC is developing the Electronic Health Record (EHR) which will give providers access to patient information more easily, safely, and effectively.



The IHS Electronic Health Record Project

The Indian Health Service has long been a pioneer in using computer technology to capture clinical and public health data. The Resource and Patient Management System (RPMS) was developed in the 1970's and provides facilities with access to decades of personal health information and epidemiological data on local populations. Its primary clinical component, the Patient Care Component (PCC), was developed by the early 1980s. The PCC is an electronic abstract of patient information rather than a complete electronic healthcare record. The PCC allows users to capture the most essential clinical data concerning patient contacts with the health care system. IHS is presently embarking on the next phase of clinical technology, the IHS Electronic Health Record (IHS-EHR).

Electronic Health Records

Also known as computerized patient records (CPR) or electronic medical records (EMR), electronic health records allow for entry and storage of a wide variety of patient information in electronic format, and subsequent access to this information by healthcare providers, patients, and other authorized users. In its fullest form, an EHR replaces the paper record, eliminating the need for filing and storage, as well as the risk and inconvenience of misplaced or otherwise inaccessible charts. Lesser versions of an EHR may require some paper to be retained (such as outside consults or hospital reports),

but still allow for most clinical transactions to take place on line, speeding transmission of information and reducing the risk of errors.

Evolution of EHRs

The concept of electronic records has been around for decades, but technology and the will to change business practices in the healthcare industry have been slow to develop. In 1991 the Institute of Medicine (IOM) issued a report urging a wholesale transition to electronic records within ten years. This has not happened, but momentum is increasing, spurred on by a number of Federal government agencies.

In the 1990's the Veterans Health Administration (VHA) made the decision to move all of its facilities to an electronic record. The VHA now has a robust and capable electronic record known as the

Computerized Patient Record System, or CPRS. CPRS is constantly being upgraded and improved by a large team of clinical and technological experts within VHA. The Department of Defense (DoD) also has its own version of an electronic record (Composite Health Care System (CHCS) II), which is in the process of being deployed at military medical treatment facilities around

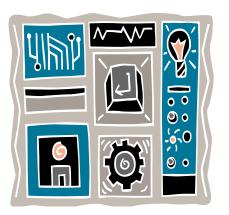
the world. At the same time, a variety of commercial electronic healthcare record products has been developed and is being heavily marketed.

Government Mandate

The Bush Administration has come out strongly in favor of electronic medical records. In 2003, the Center for Medicare and Medicaid Services (CMS) reported that it is considering developing financial incentives for physician practices and hospitals that use electronic records. DHHS Secretary Tommy Thompson announced on July 1 that the Department had commissioned the Institute

of Medicine to produce a set of recommendations on the key capabilities of an EHR system. These recommendations were published on July 31 and forwarded to HL7 Inc., a standards development or ganization, which is now in the

process of evaluating and seeking public comment. The final outcome of the HL7 balloting process will be a national standard of general requirements for electronic health record systems.



The IHS-EHR Project

Anticipating the national push toward electronic records, in 2002 IHS

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New Employees

Capt. Keith C. Longie

Capt. Keith C. Longie has been appointed the new Chief Information Officer (CIO) and Director of Division of Information Resources (DIR).

Capt. Longie first joined IHS in the Portland Area as the Director of the Health Careers Development Program. Throughout his IHS career, Capt. Longie has held positions at Headquarters in Rockville, the Western Oregon Service Unit, the Portland Area Office, and the Phoenix Area Office.

Capt. Longie has a Bachelors of Science degree from Oregon State College, and a Masters of Public Heath from the University of California at Berkley. Additionally, Capt. Longie has received multiple service awards, including the prestigious Secretary's Award for Distinguished Service. Capt. Longie is a member of the Turtle Mountain Chippewa Tribe and is married with two children.

Robert McKinney

Robert McKinney has accepted the IHS ISSO position in Albuquerque, NM. This is something as a homecoming for Mr. McKinney, as he is returning to the native home of his wife and the youngest of his two daughters.

Mr. McKinney retired from the Navy after performing 20 years of service. Throughout his naval career, he worked in a wide variety of jobs, including Aviation Electronics Technician, Network Security Manager and Mission Support Department Head. Mr. McKinney also spent two years with the Joint Information Operations Center in San Antonio, TX working as a government employee with the Air Force.

Mr. McKinney has a Bachelors of Sci-

ence degree in Mechanical Engineering from the University of New Mexico, as well as Masters degrees in both Computer Information Systems and Computer Science (INFOSEC). Mr. McKinney is currently pursuing a Doctorate degree in Software Engineering.



New DataCom (contract) employees:

Jim Beyer, Web Developer (DataCom). A former Marine and IT professional for 16 years, Jim moved to Albuquerque in 1998. Besides being a talented Web developer, Jim is a professional drummer/percussionist supporting several bands and compositional projects.

B.J. Brunning, User Support Specialist. B.J. is a social worker with an IT background. She will be working with the IHS Behavioral Health project to provide IHS with quality documentation, training, and support.

Susan Bowman, HIPPA Transaction Coordinator. Susan was the HIPAA Coordinator for the Oregon Department of Human Services. She has experience with many aspects of HIPPA and has been involved with privacy and privacy training.

Clayton Carney, NPIRS Analyst Programmer. Brian has been a consultant for over twenty years. During that time, he has been involved in numerous engineering, environmental, and IT projects.

Michelle Riedel, Training Coordinator. Michelle graduated from Wayne State College, Wayne, NE in 1992. In 1993, she and her husband moved to Albuquerque from Nebraska to be closer to his family. She comes to IHS from Blue Cross Blue Shield-NM where she served in the IHS Fiscal Intermediary Department.

Larry Seymour, NPIRS System Analyst. Larry moved from California to bring his many years experience as system/business analyst to the NPIRS/Warehouse team.

Van Sutherland, Analyst Programmer. Van comes to the ITSC from the Bureau of Land Management where he worked as a geographer/cartographer. While Van has B.A in geography, he also has 25 years of software development experience which will be a valuable asset to the SET.

Danielle Taggart, Documentation Specialist. With a B.S. in Information Technology, Danielle brings several years of technical writing and IT experience to the ITSC. Her combination of talents is ideal for software documentation. Danielle will be a wonderful addition to the ITSC Documentation team.

Glenn Young, NPIRS DB2 DBA. Glen brings diverse experience in databasing, development, and analysis to the NPIRS/Warehouse team as DB2 DBA.

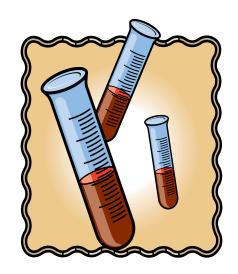
Danielle Taggart, Documentation Specialist

Lab Team Update

Doctor asks- "What can the RPMS Lab Package do for me?"

Can the RPMS Lab Package have a positive impact on the outcome of patients with chronic kidney disease? Yes!

An automated tool within the RPMS Lab Package allows you to calculate the Estimated GFR every time a serum creatinine is ordered. It has been well documented that once GFR is estimated, the patient's kidney disease can be classified, and ultimately tracked over time (see Oct 2002 Primary Provider article "Chronic Kidney Disease: Definition and Classification"). Although the Estimated GFR could be calculated by the provider each time a serum creatinine is performed, automatic calculation and display of the Estimated GFR on the lab report by the RPMS Lab Package ensures that the provider would see the result every time a serum creatinine is performed, taking the burden off



of the provider to perform the calculation. This tool was developed by the ITSC Lab Team in conjunction with Andrew S. Narva, MD

The MDRD (Modification of Diet in Renal Disease) prediction equation which utilizes the patient's serum creatinine, age, sex, and a standard factor has been programmed into the

Lab Package making it possible for the Estimated GFR to be calculated automatically every time a serum creatinine is performed. To use this automatic calculation, the latest Lab Package patch (#16), which was released to all sites on June 6, 2003, must be installed on your system. The Lab Manager or Lab Application Coordinator must attach the calculation to the serum creatinine test in the Lab Package. Once the patch is installed, instructions for setting up the automatic calculation are available from your site manager or the ITSC Help Desk@ 1-888-830-7280 rpmshelp@mail.ihs.gov

> Catherine Moore, MT User Support Specialist

If you have questions or need assistance contact the Lab Team at 505-248-4430 or 248-4347.

Help Desk Statistics

The ITSC Help Desk closed 534 support calls between April 1 and July 31 of 2003. Here's a breakdown of those calls:

Open 0-7 Days: 363 (67.98%)
 Open 8-14 Days: 48 (8.99%)
 Open 15-21 Days: 26 (4.87%)
 Open over 22 Days: 97 (18.16%)

You can contact the ITSC Help Desk by:

Phone: 888-830-7280 or 505-248-4371 Lucas Covington, User Support Specialist

The CHS Data Quality Work Group

What's It All About?

Introduction

Contract Health Services (CHS) benefits IHS users by providing services purchased from community hospitals and practitioners not otherwise directly available from IHS or Tribes. Data collected through CHS plays a critical role at IHS as CHS data are used in many ways: to help calculate the IHS user population; for fund allocation to the Areas and Tribes; and to assist in determining CHS workload.

Background

The Division of Program Statistics (DPS), the Information Technology Service Center (ITSC), and the Division of Contract Health Services of the Office of Clinical and Preventive Services (OCPS) identified four CHS reporting problems in the ITSC national data repositories that negatively impact the reporting of CHS workload data, and have the potential to negatively impact user population data. Both sets of information are used to determine Area and Tribal fund allocation. Because the Division of Facilities Planning and Construction is dependent on accurate CHS workload data, and the IHS National Data Warehouse will begin loading CHS data (and other data) within the next six months, it is important to address these problems immediately.

Application

For the past sixteen weeks the CHS Data Quality Workgroup—consist-

ing of twenty experts in CHS and information technology systems has worked together with two goals in mind: 1) to synchronize the data entering the repositories through three different data streams; and 2) to provide reporting tools to validate the national data stored in the repositories. The workgroup has made an excellent start in identifying ways to improve CHS data processing and reporting—a goal being accomplished through focused analysis of current practices, information technology training, and the documentation of key data processes.

Milestones

The CHS DQ work group met in Albuguerque on May 21-22, 2003. The first day focused on Contract Health Services Management Information System (CHSMIS) training to help the repository staff understand the origin of the data so that they can be processed and reported. The CHS and IT experts on the workgroup presented the information and answered questions posed by the statistical and repository members of the group. During the meeting many local-level CHS data quality issues were raised, reconfirming the workgroup's commitment to data quality work and training on all levels.

The second day focused on two items: 1) detailed discussions of CHS data issues, and 2) strategies for the synchronization of local and

national reports. Good progress was made toward identifying solutions to the eleven different data issues identified by the group. A strategy has been identified for synchronizing national and local reports for those sites that use the Fiscal Intermediary (FI) during the FY 2003 user population cycle. However, because of competing priorities and limited resources, the possibility exists that solutions for the non-FI sites will not be implemented until the FY 2004 cycle. The group is working on an interim solution for the non-FI sites for use during FY 2003. All recommendations and proposed solutions will be made available on the forthcoming CHS Data Quality Work Group web site.

Conclusion

The workgroup continues to build consensus on reporting and business practices used by data repository and statistical staff. When complete, our final report will fulfill our goal of presenting full technical as providing recommendations for short- and long-term goals and strategies for the improving CHS data quality.

Please contact Kath Sanders at ksanders@HQE.IHS.gov for more information about the CHS Data Quality Work Group or to be notified when the final report is available.

Application Development News

Recent RPMS Application Releases

Patient Chart v1.3

Version 1.3 of the Patient Chart program includes enhancements to the immunizations and patient education functionalities, now allowing users to add and edit immunization, skin test, and patient education protocol data through the Patient Chart interface

CHS v3.1 Patch 6

Patch 6 contains 25 fixes and enhancements as recommended by the Contract Health Service Working Group. Some of these improvements include updated denial options and revised EOBR processing. This patch also allows negative payment adjustments for third party billings.

Emergency Room System v2.5

The IHS Emergency Room system is a tool that will allow facilities to better run and manage their Emergency rooms. With the Emergency Room system, you can register, admit, and discharge patients. This package allows you to run a broad range of reports that will help you to see and manage the flow of patients and the staff workload.

The IHS Emergency Room system captures ER data in 2 stages: Admission and discharge. Admission data is stored in the ER ADMISSION file until the patient is discharged. Discharge info is stored in the ER VISIT file. There is also a Triage function that will assist in the tracking of the patient through the ER visit process.

Accounts Receivable v1.7 Patch 1

Patch 1 of version 1.7 of the A/R package corrects five known errors and revises two existing reports. The Period Summary report (PSR) has been completely reworked, adding additional parameters, which will allow for better report customization. The Age Summary report (ASM) has been expanded to include new sorting options. Both the PSR and ASM reports now include more detail, which will provide users with better tools during the reconciliation process.

Accounts Receivable v1.7 Patch 2

Patch 2 of version 1.7 of the A/R package corrects four known errors, enhances two existing reports, and adds a new menu option. This patch enhances the reporting functionality of the Period Summary report (PSR) and the Age Summary report (ASM) by allowing the reports to be electronically submitted to the EISS website. Patch 2 also adds the Patient Account Statement (PAS) menu option. Through this new menu option, users have the ability to print the Patient Account statement for all flagged patient accounts either in a scheduled batch or by individual patient accounts.

Patient Registration v7.0 Patch 1

Patch 1 of the Patient Registration package addresses issues related to recent HIPAA Title II requirements by adding new HIPAA fields in the patient's information pages. There are also two new registration param-

eters that were added to control three new fields in Edit Patient options.

The functionality lost in Patient Registration v6.0 patch 17 has been restored, allowing authorized users to delete coverage on the Medicare, Medicaid, and Railroad Retirement pages. This patch adds some keystroke-saving population of repetitive fields for both the Emergency Contact field and Private Insurance page. User's will also be able to view and edit policy holder information directly from the Private Insurance page.

GPRA + Reporting System Package v2.0

The GPRA+ Clinical Indicator Reporting System version 2.0 includes FY03 clinical performance indicators. The GPRA+ Clinical Indicator Reporting System is an RPMS (Resource and Patient Management System) software application designed for local and Area monitoring of clinical GPRA and developmental indicators in a timely manner. GPRA+ was based on a design by the Aberdeen Area (GPRA2000).



EMPLOYEE AWARDS



The following ITSC staff members were recognized this quarter:

Mike Bryant, NPRIS/DW (DC Special Team Award)

Yolinda Cadman, NPRIS/DW (DC Special Team Award)

Steve Carnes, HQ Support (DC Special Team Award)

Ed Conley, Web Team (DC Special Team Award)

Ryan DeLuche, NPIRS/DW Team (DC Saturn Award)

Ben Ferrufino, Web Team (DC Special Team Award)

Tim Frazier, Software Development (DC Special Team Award)

Stephen Freeman, TMT (DC Cosmic Award)

Dan Largo, TMT (DC Special Team Award)

Mike Loughran, Software Development (DC Special Team Award)

HueiChun Lu, HQ Development (DC Special Team Award)

Merlin Lucero, TMT (DC Special Team Award)

Eric Lujan, TMT (DC Special Team Award)

Catherine Moore, ITSC User Support (DC Special Team Award)

Tanya Nunez, Web Team (DC Special Team Award)

Lisa Petrakos, NPIRS/DW Team (DC Comet Award)

Dennis Smith, TMT (DC Stellar Award)

Marsha Starr, Software Development (DC Special Team Award)

Christy Tayrien, HQ Development (DC Special Team Award)

Juan Torrez, ITSC User Support (DC Special Team Award)

Gail Townsend, ITSC User Support (DC Special Team Award)

Mike Walleisa, HQ Support (DC Special Team Award)

Drew Wilson, HQ Support (DC Special Team Award)

Commissioned Officer Awards

Dr. Kelly Acton, Meritorious Service Medal (MSM)

Dr. Stanley Griffith, Achievement Medal (AM)

Dr. Nathaniel Cobb, Outstanding Unit Citation (OUC)

Length of Service Recognition

Anita K. Chiwewe, 10 Years

Notah Begay, 30 Years

E. Jean Garcia, 30 Years

Elvora J. Garcia, 30

Years Valentino Jaramillo.

30 Years

Edgar Moore, 30

Years

Shirley Zuni, 30 Years

Outstanding Unit Citation

ITSC Point-of-Sale Implementation

Pam Schweitzer

Patrick Cox

Sandra Lahi

Carlene McIntyre

Performance Award

Joye L. Howe

Outstanding Team Work Awards

For Outstanding Support of the Indian Health Service FTS 2001 Billing Process:

Shirley L. Zuni Karen Wade

For Outstanding Performance in Working Together to Develop, Test, Deploy, Install, and Support the Inpatient Pharmacy Suite:

Edgar Moore

Carlene McIntyre

Albert R. Toya

Pamela Schweitzer

For Outstanding Support of the Indian Health Service-wide in the Conversion of Cache:

Dale Smith Rick Pullen Mark Delaney



For Outstanding
Teamwork in the
Monitoring and
Coordination of the
Special Diabetes
Program for Indians
Grant Files and
Contracts:

Rita Beyal Elsie Casiquito Mary Tso

For Outstanding

Support of the Indian Health Servicewide Area Network:

Valentino Jaramillo

Matt Mattues

L.J. Baca

Daniel Largo

For Outstanding Support of the Indian Health Service-Wide Conversion to Windows 2000 & Active Directory:

Karen Wade Michael Martinez

EMPLOYEE AWARDS, Continued

Robert Montoya Stephen Freeman

For Outstanding Teamwork in the IHS Electronic Health Record Technical Team:

Floyd J. Evans Carlene McIntyre

Linda Fels Horace Whitt Chris Saddler Mike Danielson

For Outstanding Teamwork in Planning and Organizing the NPABQ 2002-2003 Honor Awards Ceremony:

Althea Tortalita Louise Cowboy Mary Tanequoot Dyron C. Thompson

Rita Beyal Janet Sandia Lois Boyd

Jacqueline Atauvich

For Outstanding Performance in Working Together to Develop, Test, and Deploy Functionality Required by HIPAA:

Carl Gervais
Anne Butman
Donald Jackson
Lisa Jaramillo
Adrian Lujan
Linda Lehman
Shirley Lujan
Walter Reisch
Jeanette Kompkoff
Shonda Render
Sandra Lahi

Juan Torrez

Gail Townsend

For Outstanding Performance in Working Together to Develop Requirements and Specifications for the Patient Account Management System: Donald Jackson

Sandra Lahi Cynthia Larsen Craig B. Becking Adrian Lujan

Linda Lehman Letha Runnels

Juan Torrez Brenda Tahe

Gail Townsend Sandra Winfrey

David P. Battese Toni Johnson

Violet Kenny

For Outstanding Performance in Working Together to Prepare for the

First Implementation of the

Indian Health Service's New Enterprise-wide National Data Warehouse:

Melvin Anzara
Lois Boyd
Anita K. Chiwewe
Michael Gomez
Loseph Herrara

Joseph Herrera
Dyron C. Thompson
Stanley Griffith
Mike Bryant
Anne Butman
Yolinda Cadman
Ryan DeLuche
Sue Ehrhart
Paul Golia

Paul Golis
Danny Macias
Richard Payne
Lisa Petrakos
Barbara Strzelczyk

Arnold Woods Brian Sheff

Outstanding Sustained Performance Award

Erlinda Jiron Christine Lujan **Superior Customer Service Award**

Tammy L. Brown Kelly R. Moore George Huggins Kenneth R. Russell Raymond A. Willie Althea L. Tortalita Lorraine Valdez



Superior Support Service Award

Anita K. Chiwewe Ellen L. Ortiz Janet G. Sandia

Superior Administrative Service Award

Kelly J. Acton Kathleen Federico Donald H. Reece

Mary I. Tanequoot Roberta E. Paisano Fonda C. Jackson Kathleen Federico Jacqueline L. Atauvich Carolyn Garcia Cheryl A. Wilson

Superior Task Achievement Award

Louise Cowboy E. Jean Garcia Shirley E. Lujan Ellen L. Ortiz

Peer Recognition Award

Russell G. Pittman Thomas J. Fisher

Outstanding Contract Employee Award

Cecelia Shorty Laryssa Chavez

Employee of the Year 2002

Dyron C. Thompson

Web Team News

The Pharmacy Program Has MORE

The Pharmacy Recruitment web page is the first IHS web page to use the MORE (Multi-program Online Recruitment Enterprise) system. The entire Pharmacy Program web site has been redesigned and expanded. The site's purpose is to attract potential candidates to the IHS Pharmacy Program. It is full of information about various job programs and pharmacy program job vacancies. There are also forms where candidates can request more information and submit resumes online.

The Diabetes National Programs Web Site Gets A Face-Lift

The IHS Web team has given the Diabetes National Programs web site a face-lift. The site has been redesigned for added usability and accessibility. Users will now have an easier time accessing important information. One of the most exciting aspects of the redesign is the addition of the online ordering system for diabetes education resources. Resources can now be easily and quickly ordered online without the need to browse through a lengthy catalog. This system provides an easy-to-use interface with Section 508 compliant pop-up item descriptions and page instructions. Orders are sent directly to an administrator who will review the orders. Users will also be able to track or update their order using the Online Status Check option. This new functionality eliminates the need to fill out and fax in order forms. saving both time and money.



EISS Expands

Currently the IHS Web team is expanding the functionality of the EISS. Many reports now have an online help system that allows users to obtain detailed information by clicking on the question mark symbol located at the bottom of each screen. Soon users will be able to run reports on GPRA numbers, Pharmacy Drug costs, and Accounts Receivable data. The RPMS Accounts Receivable program has been enhanced to send Period Summary Report and Age Summary Report data to the EISS. This enhancement will allow users to gain immediate access to data that now takes data entry several weeks to compile. Also, users will soon be able to use the EISS to find valuable information about IHS facilities, including directions, general information, statistics, and contact information.

Facility Naming Project

The Facilities Naming project is a first step towards a goal of combining all known IHS facility da-

tabases into one. The NPIRS program is currently maintaining a number of area, service unit, and facility tables. This will be the basis for building the mapping information. Historically, there has been a problem with ASUFAC codes changing over time. This project aims to rectify this problem by using Unique Service Point Identifiers (USP IDs) to uniquely identify IHS points of service or places of service, which will then be used for the initial Data Warehouse loads in addition to the ASUFAC codes. With the help of the Area Statisticians, the ITSC is mapping facilities to a consistent and unchanging identification number, consolidating the often inconsistent ASUFAC codes together into one USP_ID table.

The Business Office Moves To The Web

The IHS Web team has created an entirely new web site for the IHS Business office team. The site provides the latest information on patient management software, training, and business office policies. Users can find training schedules, valuable management tools, software documentation, resources on business office regulations, and links to other useful sites. Business office personnel now have a powerful resource to help them with their everyday activities.

Jo Robar, Web Developer

Rus Has Left The Building

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- The IHS network is more robust and is being used for more things than ever before, including Telemedicine, video conferencing, and remote training.
- The ITSC has implemented a national network security system and an email gateway.
- The ITSC has a larger budget than it did in 2000
- More tribal organizations are using our products.
- Additional staff has been hired, including clinically trained staff, providing more professional support to our customers.
- Telecommuting is now available, which improves our ability to stay competitive in the technology job market.

Rus says that one major successful push has been "to provide the resources to customers so they can more effectively provide patient care and where possible, to bring those resources as close to the point of service as possible. For instance, with the EHR, a provider can get the information they need without having to go through a clerk, they will have immediate access to patient information at or close to the point of care."

During his tenure, Rus has attempted



and succeeded in making the ITSC more customer focused and customer driven: "we have tried to make it easier for the customer to use our products:

• We have integrated new technologies for our customers such as teleconferencing for training, satellite dishes have been installed at 54 sites, there is greater use of net meeting, and more than 400 people dial in and use the Virtual Private Network (VPN).

- We have improved quality assurance for both NPIRS and RPMS by rewriting the SAC, improving process flow, and changing the organization to achieve compliance with the Capability Maturity Model (CMM).
- We have implemented the Executive Information Support System (EISS) that allows personnel immediate access to financial and statistical information that normally would take days or even weeks to compile. We have placed tools in our customers hands to make it easier for them to track data more accurately across platforms.
- We can now bill for more services than before and have the electronic

- means of showing and tracking collections.
- Areas ISC's and other technical staff now have advanced tools that allow them to see how their network is operating in real time."

Rus believes the next 5 years here at IHS will be extremely exciting. "[IHS] can now to take advantage of the EHR, the Data Warehouse, and the EISS." He would like to see the IHS take these applications to the "next level," taking advantage of the momentum that has already begun: "we've been building the underlying infrastructure that will take IHS to the next level. IHS is at the point where we are using Telemedicine and distance learning. RPMS is now in a position to take advantage of the VA's most recent software releases, and the Data Center along with other databases are being effectively used by the EISS to help the customer make more informed and better decisions "

A farewell luncheon was held for Rus on Thursday, August 14th. He was presented with a plaque thanking him for his service to IHS and several gifts and cards from the staff in National Programs. His effective departure date was August 16th.

Juan Torrez, Documentation Specialist

The IHS Electronic Health Record Project

continued from page 2

leadership mandated that ITSC should develop an EHR for use in I/T/U facilities. A pilot project at Crow Indian Hospital was developed using components of the VA's CPRS in a graphical user interface (GUI) or Windows® product. Over the past several months ITSC programmers and contractors have been working hard to produce an IHS-specific EHR suite of applications comprising the EHR product that will be ready for testing within a few months

IHS and VHA clinical applications are very similar. In fact, many RPMS applications were originally developed by VHA and adapted for use by IHS. IHS developed other RPMS applications, and VHA has adapted some of these for use in their system. Because of the similarity of IHS and VHA clinical data platforms, and because VHA has tremendous software development resources and has agreed to work closely with IHS on co-development of EHR capabilities, IHS is modeling its electronic record on the VHA CPRS application. The GUI product within which IHS-EHR applications will be presented is also able to display commercial off-the-shelf (COTS) applications that have been adapted to the product. This will permit individual facilities some flexibility in how they configure their electronic health records.

Even sites that do not plan to implement EHR in the short term will

benefit from the project, because of the concentrated effort on the part of ITSC programmers to upgrade all relevant RPMS packages to the most current versions. These packages will be available for all I/T/U facilities to use, with or without the EHR GUI product.

Infrastructure and Site Preparation

Transitioning to an electronic healthcare record requires extensive changes in a health organization's business processes, as well as in the computer hardware and software needed to support and run the EHR. Sites considering implementing the IHS-EHR should begin immediately to evaluate workflow patterns and business processes and seek expert consultation on how these may need to be redesigned. Because medical providers and many other users of the EHR will need access to the system at the point of service, most facilities will need to extensively upgrade their network infrastructure and install new computer hardware. In addition, the latest versions of and patches to RPMS applications will need to be installed.

Rolling out an electronic record system at any facility will require an extensive training effort at the time of implementation, as well as an ongoing program of training and support in anticipation of staff turnover and application upgrades. At a minimum, facilities should expect to add a full time Clinical Applica-

tions Coordinator position for support and training of the product, and should consider whether additional Information Technology staff will be needed to support potentially increased demand on this department.

Current Status

An initial version of the IHS Electronic Health Record is scheduled for alpha testing at the Tuba City Indian Medical Center beginning late in 2003. Two additional alpha test sites will be used to ensure that the EHR works in different environments without interference with other applications. Four beta test sites are under consideration, at which the product's usability and reliability in the clinical setting will be further evaluated. These test sites will continue to be the proving ground for additional enhancements to the EHR as they are developed. Final certification of the basic IHS-EHR product for distribution to the rest of the I/T/U system is anticipated in mid to late 2004. In the meantime, programming efforts will continue, as well as development of plans to create and support the training and implementation demands that are expected with the upcoming availability of this application. The IHS-EHR web pages on the Indian Health Service Internet site are undergoing revision, and will be a source of continuing information about the project.

> Howard Hays, MD, MSPH, IHS-EHR Clinical Lead

Cissy Henig, PMP, Project Manager, IHS-EHR Project

RPMS Training Schedule (By Location)

September

Alaska Area

09/3-5 PCC Output Reporting Alaska *

Nashville Area

09/23-25 Third Party Billing/ Accounts Receivable Nashville *

Navajo Area

09/9-11 Third Party Billing/ Accounts Receivable Navaio *

Oklahoma Area

09/9-11 PCC+ Oklahoma *

Portland Area

09/22-26 Site Manager's Training Portland

09/24-25 Behavioral Health Northwest Portland Area Indian Health Board *

October

Alaska Area

10/14-15 Behavioral Health Alaska * 10/16-17 Behavioral Health Alaska *

Phoenix Area

10/6-9 PCC Data Entry I and II (v2.0) Phoenix

10/15-16 Chemical Dependency Management Information System (v4.1) Phoenix

Portland Area

10/28-29 Referred Care Information System Northwest Portland Area Indian Health Board

10/30-31 Contract Health Service Northwest Portland Area Indian Health Board

November

Phoenix Area

11/18-20 PCC Output Reporting Phoenix

Albuquerque Area

11/18-20 Radiology Albuquerque *
11/3-7 Introduction to the Laboratory Package Albuquerque



* ITSC-Sponsored

If the training you're interested in is ITSC-sponsored, please contact David White (505-348-8173 or david.white@mail.ihs.gov) for more information. If the training is not ITSC-sponsored, you will need to contact the hosting Area's Training Coordinator.

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